



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,245	12/30/2003	Hyun-Jong Cho	11038-137-999	8309

24341 7590 11/03/2005

MORGAN, LEWIS & BOCKIUS, LLP.
2 PALO ALTO SQUARE
3000 EL CAMINO REAL
PALO ALTO, CA 94306

EXAMINER

WEBB, TIFFANY LOUISE

ART UNIT PAPER NUMBER

3616

DATE MAILED: 11/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/749,245

Applicant(s)

CHO, HYUN-JONG

Examiner

Tiffany Webb

Art Unit

3616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/30/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities:

In line 8: "the road" should be "a road"

In line 9: "lateral force of the tire" should be "lateral force on the tire"

Appropriate correction is required.
2. Claim 2 is objected to because of the following informalities:

In lines 5-6: "said upper arm" should be "an upper arm"

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
4. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zetterstrom (US 6,386,553) in view of Miyazaki (JP60-252008A). Zetterstrom discloses a plurality of sensors (see Figure 3), with an electronic control unit (36) for calculating inputs from the sensors, and actuator activated by the electronic control unit for adjusting camber (col. 8, lines 35-36, and 29 in Figure 1), an actuator (29) with a moving part for linearly sliding (30) and a fixed part pivotally mounted to a vehicle body at an upperside of a lower arm (32), a pivot arm with one end pivotally coupling to said moving part of an actuator (31) and the other end connected to the vehicle body side of

an upper arm (26) and the mid-part of pivot arm pivotally fasted to a vehicle body (28), and fails to disclose protruding ends formed on a shoulder part of a tire, protruding ends taking forms of rings around the shoulder in a plurality of row and sloping outwards, and where the protruding ends get longer as they go from the read side to the sidewall side. Regarding claims 1 and 3, Miyazaki discloses protruding ends from a shoulder portion of a tire, forming a plurality of rows forming rings, at constant intervals sloping outwards towards a road surface (see Figure 1). Regarding claim 4, Miyazaki further discloses having protruding ends that are longer as it goes from the tread to the side wall (see Figure 1). In Figure 1 of Miyazaki, at the side wall (3) the protruding ends are longer than at the tread side (4). It would have been obvious to a person having ordinary skill in the art at the time of the invention of have a tire with protruding ends in the suspension adjustment system of Zetterstrom in view of Miyazaki in order to have a tire on the suspension and to provide more contact with the road.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following are active suspension systems: Mackel et al. (US 6,634,654), Mackle et al. (6,347,802), Izawa et al. (US 6,223,108), Gilbert (US 6,170,594), and Laurent et al. (US 2002/0093152). The following are tires with protrusions on the tire shoulder: Giebhart (US 3,176,748) and Ochiai (US 4,993,466).

Art Unit: 3616

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tiffany Webb whose telephone number is 571-272-2797. The examiner can normally be reached on 8-4:30 M-F.

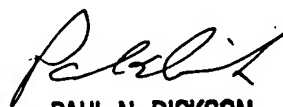
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tiffany Webb
Examiner
Art Unit 3616

tlw



10/28/05
PAUL N. DICKSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600